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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/665,495

09/22/2003

I-Linag Lin

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6867

2292

7590

05/26/2006

BIRCH STEWART KOLASCH & BIRCH

PO BOX 747

FALLS CHURCH, VA 22040-0747

EXAMINER

LEVINE, ADAM L

ART UNIT

PAPER NUMBER

3625

DATE MAILED: 05/26/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/665,495

Applicant(s)

LIN ET AL.

Examiner

Adam Levine

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 January 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 24 November 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Drawings

The drawings were received on November 24, 2003. These drawings are objected to because they are not labeled "Replacement Sheet" or "New Sheet." Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

The specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

Claim Objections

Claims 6, 7, 8, 9, 11, 15, 17, 18 and 20 are objected to because of the following informalities: Claims 6 and 17 recite the limitation "the thermal performance." There is insufficient antecedent basis for this limitation in the claims. Claim 7 recites the limitation "the amount of substrate layers." There is insufficient antecedent basis for this limitation in the claim. Claims 8 and 18 recite the limitation "the number of a plurality of input terminals and a plurality of output terminals." There is insufficient antecedent basis for this limitation in the claims. Claim 9 recites the limitation "the pitch between said input terminals and output terminals." There is insufficient antecedent basis for this limitation in the claim. Claims 11 and 20 recite the limitation "the thermal analysis module." There is insufficient antecedent basis for this limitation in the claims. Claim 15 recites the limitation "the die dimension." There is insufficient antecedent basis for this limitation in the claim. Appropriate correction is required.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

1. **Claim 19 is rejected under 35 U.S.C. 112, second paragraph**, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The claim is generally narrative and indefinite, failing to conform with current U.S. practice. It appears to be a partial literal translation into English from a foreign document and has grammatical and/or idiomatic errors. The claim is interpreted as reporting the analysis results to the user by various means such as email, or any message to the user's terminal.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. **Claims 1-20 are rejected under 35 U.S.C. 102(b) as being anticipated by Vinciarelli (US Patent No. 6,110,213).**

Vinciarelli teaches all of the limitations of claims 1-20. For example, Vinciarelli discloses methods for designing and manufacturing electrical equipment using expert systems that accept design choices and specifications from a user and determine feasibility and manufacturability of the design using modules that perform analyses regarding various stress factors. Vinciarelli further discloses:

- inputting an requiring information about a semiconductor package: by a user
(see at least abstract, figs.5,8; column 4 lines 15-21. Please note: the phrase

“requiring information” is used together as a noun throughout the specification and claims. It is unclear whether this is a deliberately created term or merely an awkward choice of words where “required information” or “the information required” would be a less stilted way of putting the same concept. The Examiner interprets the phrase to mean information regarding the details of the package required by the user); user inputs said requiring information via internet (see at least fig.5, column 2 lines 11-19); requiring information includes: a package type, substrate type (see at least column 8 lines 36-56, 66-column 9 line 11, column 20 line 55 – column 21 line 7, column 26 line 63 – column 27 line 28), die dimension (see at least fig.6, column 3 lines 20-39, column 4 lines 15-21, column 6 lines 26-31, column 8 lines 23-35, 66-column 9 line 11, column 26 lines 40-52), thermal performance (see at least abstract, column 1 lines 21-49), number of a plurality of input terminals and a plurality of output terminals (see at least abstract, column 2 lines 11-19, 28-41, column 3 lines 40-52).

- storing said requiring information in a database: (see at least fig.5, column 21 line 56 – column 22 line 8).
- producing a plurality of analysis results by a plurality of analysis modules: including thermal analysis, circuit analysis, stress analysis, reliability analysis, material analysis, and substrate analysis modules, according to said requiring information of said order (see at least figs.5-8, column 1 lines 30-35, 64-column 2 line 10, 20-25; column 3 lines 53-65, column 32 line 44 – column 33 line 3, column 35 lines 13-20).

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- recording said analysis results in said database: (see at least column 32 line 44 – column 33 line 3).
- responding said analysis results to said user by a replying means: electronic mail, a facsimile, a short message or all of that input terminals and output terminals (see at least abstract, figs.7C,8; column 2 lines 11-19, column 21 lines 41-55. Please note: this is interpreted as reporting the analysis results to the user by various means such as email, or any message to the user's terminal).

Pertaining to system claims 1-11

System claims 1-11 are rejected based on the same rationale as noted above.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Adam Levine whose telephone number is 571.272.8122. The examiner can normally be reached on M-F, 8:30-5:00 Eastern.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jeffrey A. Smith can be reached on 571.272.6763. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Adam Levine
Patent Examiner
May 24, 2006



Robert M. Ford
Primary Examiner